BEFORE
THE PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA

DOCKET No. 2001-65-C

IN THE MATTER OF:	)
	)
Generic Proceeding to Establish Prices	)
For BellSouth's Interconnection Services,	)
Unbundled Network Elements and Other	)
Related Elements and Services	)
	)

DIRECT TESTIMONY OF

MICHAEL STARKEY

On behalf of

New South Communications, NuVox Communications, Broadslate Networks, ITC^DeltaCom Communications, KMC Telecom

Public Version

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EXHIBITS

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS FOR THE RECORD.

A. My name is Michael Starkey. My business address is QSI Consulting, Inc., 1918 Merlin Drive, Jefferson City, Missouri, 65101.

Q. WHAT IS QSI CONSULTING, INC. AND WHAT IS YOUR POSITION WITH THE FIRM?

A. QSI Consulting, Inc. ("QSI") is a consulting firm specializing in the areas of telecommunications policy, econometric analysis and computer aided modeling. I currently serve as the firm's President.

Q. ON WHOSE BEHALF WAS THIS TESTIMONY PREPARED?

A. This testimony was prepared on behalf of New South Communications, NuVox Communications, Broadslate Networks, ITC^DeltaCom Communications and KMC Telecom (referred to collectively as the "Competitive Coalition").

Q. PLEASE BRIEFLY DESCRIBE YOUR BACKGROUND.

A. Before founding QSI, I was a founding partner and Senior Vice President of Telecommunications Services at Competitive Strategies Group, Ltd. (CSG). Like QSI, CSG is a consulting firm that provides consulting services to telecommunications carriers, equipment manufacturers, consumer advocates and policy makers. Before joining CSG, I was employed by the Maryland Public Service Commission as Director of the Commission's Telecommunications Division. There I was responsible for managing the Commission's Telecommunications Staff that provided the Commission with telecommunications policy, economic, and technical expertise.

Before joining the Maryland Commission staff, I was employed by the Illinois

Commerce Commission as Senior Telecommunications Policy Analyst in the Commission's Office of Policy and Planning (OPP). My primary responsibility at the Illinois Commission was to draft and implement the Commission's rules (pursuant to the Illinois Administrative Code) governing costs of service (i.e., Long Run Service Incremental Costs) as well as rules requiring local exchange carriers to unbundle their local exchange networks (both rules predated the Telecommunications Act of 1996). I began my career as an Economist III with the Missouri Public Service Commission in the Commission's Utility Operations Division.

Q. MR. STARKEY, HAVE YOU PREVIOUSLY PROVIDED TESTIMONY BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA (HEREAFTER "COMMISSION")?

A. Yes, I have. In addition, during the past ten years I have provided written testimony, affidavits and/or live testimony before not only the South Carolina Commission, but also before the FCC and the following state utility commissions: Alabama, California, Colorado, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Louisiana, Maryland, Massachusetts, Michigan, Mississippi, Missouri, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Texas, Tennessee, Washington, Wisconsin and Wyoming.

A more complete description of my relevant experience can be found in at the end of this testimony in **Exhibit MTS-1**.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. QSI Consulting has been asked by a number of Competitive Local Exchange Company (CLECs) clients throughout the BellSouth region to analyze BellSouth's rates for unbundled network elements ("UNE's") and the underlying cost studies that support

those rates. This testimony contains the results of our analysis. Specifically, my testimony focuses on BellSouth's proposed rates for the following UNEs:

1. Unbundled Copper Loop - "UCL,"

3. Loop Conditioning, i.e., the ability to remove certain devices that disrupt a CLEC's data traffic (e.g., the removal of load coils, excessive bridged tap and other disruptive devices);

Q. WHY ARE REASONABLE, COST BASED RATES FOR THE NETWORK ELEMENTS HIGHLIGHTED ABOVE SO IMPORTANT?

A. As Ms. Cox recognized in her direct testimony,[1] the UNEs identified above are critical to the provision of competitive telecommunications services and reasonable, cost based rates for these services are essential to the competitive growth of new telecommunications technologies and services in South Carolina.

Q. HAVE YOU HAD AN OPPORTUNITY TO REVIEW BELLSOUTH'S COST STUDIES FILED IN THIS PROCEEDING?

A. Yes, I have.

Q. DO YOU HAVE ANY COMMENTS REGARDING BELLSOUTH'S STUDIES?

A. Yes, I do. In similar proceedings held in North Carolina, Tennessee, Alabama and Louisiana, I've been critical of BellSouth's cost study documentation and the fact that BellSouth's testimony rarely provides any explanation of its studies or explains to the Commission why the thousands of inputs included in the studies are reasonable. Further, I've criticized a number of Bellsouth's assumptions and individual inputs that are most directly responsible for many of its exaggerated cost estimates. While many of BellSouth's proposed rates, inputs and assumptions remain unexplained, and likewise, many can still be described only as "unreasonable," BellSouth has over the past two years made progress toward ridding its studies of some of their errors and exaggerations.

Ms. Caldwell points to a number of these corrections in her Supplemental Testimony filed on April 25, 2001. However, it is critical to point out to the Commission that many of BellSouth's most damaging conceptual and assumption errors remain in the study and must be revised by this Commission in this proceeding. The purpose of my testimony is not to address every rate element proposed by BellSouth, but instead, to focus only on those areas that require additional revisions before BellSouth's studies generate reasonable costs consistent with the FCC's Total Element Long Run Incremental Cost ("TELRIC") rules.

II. xDSL-CAPABLE LOOPS

Q. WHAT IS AN XDSL CAPABLE LOOP AND WHY IS IT IMPORTANT THAT CLECS BE ALLOWED TO GAIN ACCESS TO THESE LOOPS AT REASONABLE, COST-BASED RATES?

A. In simplest terms, an "xDSL capable" loop is nothing more than a copper facility of reasonable quality and free of load coils, excessive bridged tap or other devices that tend to disrupt the digital transmission of xDSL services. Generally referred to as a "clean copper loop," nearly any copper loop that exists in the ILEC network today could be used as an "xDSL capable" loop. In addition, an "xDSL capable loop" can also be a loop comprised of fiber optic feeder cable and copper distribution cable. All that is required is that a specific, xDSL "plug-in" be used in the digital loop carrier device that connects the fiber feeder and copper distribution segments of the loop. This type of "xDSL" capable loop allows xDSL services to be provided to customers who reside further from the ILEC central office.

Q. DO YOU HAVE ANY CONCERNS ABOUT UNBUNDLED COPPER LOOPS?

[1] Direct Testimony of Cynthia K. Cox, filed February 16, 2001 (herafter "Cox Direct"), pages 5-6.

A. Yes, I do. While BellSouth has recently offered an Unbundled Copper Loop – Non-Designed (see Ms. Cox's Supplemental Direct Testimony at pages 2-4) to alleviate some concerns regarding the designed loop process, BellSouth has in live testimony in other jurisdictions indicated that the UCL-ND will not be provided to the CLEC with any guarantee that it will provide continuity or balance typical of that needed to support simple voice grade services. Indeed, BellSouth seems to indicate that the CLEC must "take the loop as it is" when it is offered as a UCL-ND, even if the loop simply requires routine maintenance to restore it to working order that would render it useable by the CLEC. If the CLEC would like the routine maintenance done, BellSouth has introduced a new rate element that would identify the work that needs to be done (rate element A.19) and further non-recurring charges that the CLEC would be required to pay for this work up-front, even though it is already paying for the maintenance of the loop within the monthly recurring charge it will pay to BellSouth. The result of the way in which BellSouth intends to provision the UCL-ND in this way, renders it as a poor provisioning choice for CLECs. As a result, at the end of the day, CLECs may be forced to purchase access to one of BellSouth's other, more expensive xDSL capable loops.

Q. ARE THE MONTHLY RECURRING RATES FOR THE UCL-ND APPROPRIATE?

A. No. Ms. Cox's exhibit CKC-1 (February 16, 2001), includes the following monthly recurring rates for BellSouth's Unbundled Copper Loop products:

Unbundled Copper Loop (UCL)	DESIGNED UCL – SHORT	DESIGNED UCL-LONG	NON-DESIGNED UCL
Rate Zone 1	$15.24	$47.77	$16.17
Rate Zone 2	$17.14	$89.16	$18.14
Rate Zone 3	$17.68	$84.94	$18.77

There are two primary problems with BellSouth's proposed rate design (and hence, cost derivation) for its UCL loops as depicted in the table above. • First, while BellSouth's

"short" and "long" distinction for its "designed" UCL loop is obviously an attempt to identify greater costs for longer loops that require more copper, fiber and/or support facilities than do shorter loops (an important distinction), the way in which BellSouth has attempted to address this issue isn't the most effective manner and results in exaggerated costs for an important sub-set of UCL loops (i.e., loops slightly greater than 18,000 ft.). • Second, without explanation, BellSouth has chosen not to recognize the very same important cost distinction between shorter and longer "non-designed" UCL loops even though it has recognized the same cost differences for its "designed" UCL loop.

Q. PLEASE EXPLAIN HOW BELLSOUTH DIFFERENTIATES BETWEEN "SHORT" AND "LONG" UCL LOOPS.

A. BellSouth simply assumes that any loop shorter than 18,000 ft. in length is a "short" loop and any loop longer than 18,000 ft. is a "long" loop. BellSouth then derives costs for each loop type using the average loop characteristics for each subset in its loop network (i.e., BellSouth determines average characteristics for all loops that are less than 18,000 ft. and then derives another set of average characteristics for all loops that are longer than 18,000 ft.). While I would not disagree that it is important to directly identify and measure differences in costs between long loops and short loops (because they can be substantial even within the same exchange, hence, typical geographic deaveraging schemes do little to identify major cost differences amongst loops), arbitrarily choosing 18,000 ft. does little to effectively measure these important cost differences, especially for purposes of estimating costs for loops that will support xDSL services (the intention of the UCL). This results from the fact that some xDSL services can function well on loops extending further than 18,000 feet from the central office, though at distances of 22,000 to 26,000 feet, the vast majority of xDSL services using copper facilities begin to

become unmarketable. Unfortunately, using BellSouth's "short" versus "long" method, costs associated with a UCL loop extending 18,001 feet from the central office, incorporates cost characteristics of far longer loops (in some cases loops that are more than 60,000 feet in length), loops that would never be used as a UCL loop to support xDSL services (and hence, whose costs should not be considered in determining the cost of a UCL that will actually be used by CLECs). It is this phenomenon inherent in BellSouth's approach that generates the enormous monthly cost difference that exists between the "short" versus "long" UCL (and generally ensures that customers using loops greater than 18,000 feet will have few, if any, competitive xDSL alternatives).

Q. HOW WOULD YOU RECOMMEND THAT THE COMMISSION REMEDY THE ERROR IN BELLSOUTH'S PROPOSED RATE DESIGN FOR ITS UCL?

A. There are at least two methods that could be used to effectively eliminate the unreasonable costs BellSouth includes in its UCL studies. BellSouth could either be required to establish a third distinction (i.e., short, medium, and long) for UCL loops, or, BellSouth could be required to assess rates based upon distance bands, i.e., BellSouth could be required to establish rates for every 6,000 feet of loop purchased by a CLEC. The first of these methods should add little administrative complexity to BellSouth's currently proposed system (i.e., only a single additional band, the medium band, is added), yet would provide substantial benefit to CLECs who chose to offer services to customers residing further from the BellSouth central office). If the Commission adopts this approach, I would recommend that BellSouth be required to establish a "short" UCL rate for all loops 14,000 feet and below, a "medium" UCL rate for all loop lengths between 14,000 and 26,000 feet, and a "long" loop that would capture costs for all loops longer than 26,000 feet.

The second proposed method above (i.e., rate bands for every 6,000 feet of loop purchased), is likely the more economically accurate of the two methods (because it ties economic costs more directly to the length of the loop ordered), and was supported by a consultant working on behalf of the Staff of the Louisiana Public Service Commission in an ongoing docket similar to this docket (Louisiana Docket No. 27821). However, BellSouth has voiced concerns regarding administrative difficulties that could result from this approach. To my knowledge BellSouth has yet to specifically identify those difficulties or to quantify their impact. Hence, I believe this approach should remain as a viable option for the Commission to consider with respect to better aligning BellSouth's actual loop costs with the UCL rates ultimately adopted.

Q. REGARDLESS OF WHICH METHOD ABOVE THE COMMISSION CHOOSES, SHOULD IT REQUIRE BELLSOUTH TO REMEDY THE PROBLEM YOU'VE IDENTIFIED WITH ITS "SHORT" VERSUS "LONG" DISTINCTION?

A. Yes, it should. Either of the methods above would provide a reasonable solution to the problem caused by BellSouth's current "short" versus "long" distinction.

Q. PLEASE EXPLAIN YOUR CONCERN REGARDING BELLSOUTH'S FAILURE TO INCORPORATE DIFFERENT "SHORT" VERSUS "LONG" LOOP RATES FOR ITS "NON-DESIGNED" UCL RATES?

A. For purposes of ensuring the highest level of economic efficiency (and encouraging the highest level of competition), costs for unbundled elements should be matched as closely to their underlying costs as possible. Even BellSouth seems to recognize this concept to some extent in its attempt to differentiate between "long" versus "short" "designed" UCL loops, yet, for some unexplained reason, BellSouth abandons the same approach in deriving costs and rates for its "non-designed" UCL loops. Despite BellSouth's failure in this regard, the Commission should require BellSouth to develop costs for, and

propose rates for, "non-designed" UCL loops consistent with the approach adopted for the "designed" UCL loop. Regardless of the method ultimately chosen by the Commission in overcoming BellSouth's current "short" versus "long" structure currently used for its "designed" UCL, the Commission should require that BellSouth implement the same approach for its "non-designed" UCL loops. Even if the Commission decides that BellSouth's current "short" versus "long" distinction is adequate for the "designed" UCL, it should require BellSouth to implement the same structure for its "non-designed" UCL.

III. LINE CONDITIONING

Q. PLEASE IDENTIFY THE LINE CONDITIONING RATE ELEMENTS BELLSOUTH HAS PROPOSED IN THIS PROCEEDING.

A. BellSouth proposes to assess the following charges when CLEC's request that an unbundled loop be "conditioned" to accommodate digital services:

BELLSOUTH PROPOSED LOOP CONDITIONING RATES	Non-Recurring Charge (First)
A.17 LOOP CONDITIONING - RATE	
A.17.1 Unbundled Loop Modification - Load Coil / Equipment	$64.91
A.17.2 Unbundled Loop Modification - Load Coil / Equipment	$341.77
A.17.3 Unbundled Loop Modification - Bridged Tap	$64.95
A.17.4 Unbundled Loop Modification -	$12.98

Q. SHOULD THE COMMISSION ALLOW BELLSOUTH TO ASSESS THE CHARGES ABOVE FOR LOOP CONDITIONING?

A. No, it should not. The following section of my testimony highlights why allowing BellSouth to recover loop conditioning costs consistent with its proposed rates will allow it to (1) recover expenses in excess of reasonable, cost based rates consistent with forward looking economic costing principles (in violation of the FCC's rules), (2) double-recover expenses that are already included in its monthly recurring unbundled loop charges, and (3) require CLECs to pay for network upgrades that BellSouth should have been making over the past 20 years (upgrades that primarily enhance BellSouth's network so that it can better accommodate increasing demands for retail digital services).

Q. DO YOU HAVE ANY GENERAL COMMENTS ABOUT THE CONDITIONING CHARGES PROPOSED BY BELLSOUTH?

A. Yes, I do. At their very core, BellSouth's proposed conditioning rates are based upon a conceptual error. That error can be best explained as follows:

(1) BellSouth is required via the FCC's forward looking economic cost methodology, to derive costs for UNEs based upon an efficient network architecture which accounts for the most cost-effective technology available.

(2) BellSouth claims that its existing cost studies that support its monthly recurring loop charges are compliant with this standard.

(3) Those studies assume that BellSouth's network is built in such a way that loops would not require load coils, bridged tap or other devices that will disturb digital transmission. Likewise, the forward looking costs of building such an advanced network undoubtedly exceed the costs of provisioning loops on BellSouth's embedded network.

(4) Yet, BellSouth, via its loop conditioning charges, is attempting to maintain its higher monthly recurring loop charges (based upon a forward looking network), while at the same time recover additional loop conditioning costs based upon the circumstances that exist in its embedded network. In short, BellSouth chooses to "eat its cake and have it too." That is, BellSouth wants to charge higher monthly recurring loop charges associated with a forward looking network, yet also recover costs associated with modifying its less costly embedded network.

Obviously, the Commission cannot condone such game playing. BellSouth must assess both monthly recurring and nonrecurring rates consistent with the same network assumptions. Those network assumptions should be consistent with the network BellSouth itself assumes as a reasonable forward looking network design for purposes of establishing monthly recurring costs. BellSouth should be allowed to recover monthly recurring costs associated with provisioning a forward looking network; it should not, however, be allowed to recover nonrecurring conditioning costs that are antithetical to the very same forward looking network.

Q. DO LOAD COILS AND BRIDGED TAP STILL EXIST IN BELLSOUTH'S NETWORK?

A. Yes. However, as explained in detail by Mr. Fassett, this is largely a function of BellSouth not having migrated its network to meet with its own internal engineering guidelines over the past 20 years. Load coils and bridged tap, regardless of whether they continue to be used in the network, are not consistent with a forward looking network

design and would not be engineered on new plant by any reasonable telecommunications engineer.

Q. IF LOAD COILS AND BRIDGED TAP EXIST IN THE NETWORK AND MUST BE REMOVED, SHOULDN'T BELLSOUTH BE PERMITTED TO RECOVER ITS EXPENSES FROM THE CLECS?

A. BellSouth may indeed incur real expenses when removing load coils and bridged tap (as well as other devices that interrupt digital transmission), however, BellSouth should not be allowed to recover these expenses from CLECs.

Q. WHY NOT?

A. When a CLEC pays BellSouth a monthly recurring charge to purchase an unbundled loop, the CLEC is actually paying an amount necessary for BellSouth to construct that loop anew consistent with forward looking network design standards (i.e., no load coils or bridged tap). It is for this reason that BellSouth's studies assume that it must purchase new cable, new telephone poles, new central office equipment and new digital loop carrier electronic equipment to provision the loop (i.e., proper forward looking cost studies assume today's prices for today's equipment and allow the ILEC to recover depreciation expenses as if that equipment were brand new equipment). Obviously, however, BellSouth doesn't construct each unbundled loop anew. This results from the fact that it is actually cheaper, in the short run, for BellSouth to use a loop facility that already exists in its network to provision the unbundled loop ordered by the CLEC. Many times it is far cheaper to use the existing network because the existing cable, telephone poles and other equipment are almost completely depreciated and the expenses associated with those facilities have been recovered by BellSouth in total (BellSouth incurs expenses only with maintaining that facility). In strictly marginal cost terms, many times BellSouth can provision such an unbundled loop with little, if any out-of-

pocket cost to itself. However, the CLEC continues to pay a monthly recurring rate as if it were buying a brand new facility that has been recently constructed.

Q. WHY IS THIS IMPORTANT?

A. The significant rests in the fact that BellSouth is being paid, by the CLEC via the monthly recurring charge assessed for an unbundled loop, to build a loop consistent with the network standards assumed within the cost study. For this reason, the CLEC should be assured that the loop it receives has been so constructed and complies with those standards. The fact that in many circumstances, BellSouth can provision an acceptable loop without adding to or modifying its existing network, allows BellSouth to provision a loop at costs far below the rate paid by the CLEC (and costs estimated by a forward looking model). In these circumstances, BellSouth receives a windfall. As if this weren't bad enough, in one of the few circumstances where BellSouth must actually modify its existing network (i.e., by removing load coils) to provision an acceptable loop consistent with the standards it is charging for, it is asking that the CLEC pay for the modification as well. This simply isn't consistent with the manner by which the FCC requires prices for UNEs to be set.

Q. HAVE OTHER STATE COMMISSIONS ADDRESSED THIS ISSUE?

A. Yes, other state commissions have refused to sanction double recovery of costs by ILECs via conditioning charges. In Massachusetts, for instance, the Department of Telecommunications and Energy ("M.D.T.E.") concluded that it would be inconsistent with the FCC's pricing rules for Verizon to recover loop conditioning costs when Verizon's forward looking network design assumed within its unbundled loop study would not require conditioning at all.[2] Similarly, the Utah Public Service Commission

[2] *Investigation by the Department on its own motion as to the propriety of the rates and charges set forth in M.D.T.E. No. 17, filed with the Department by Verizon New England, Inc. d/b/a Verizon Massachusetts*

described the situation perfectly:

> A TELRIC model (or a forward-looking, efficient provider) would not design a network that required loops to be conditioned or groomed before services today's customers expect could be provided. It follows, and we so conclude, that the buyer of an unbundled loop should not have to pay for any such upgrading: the price of the loop presupposes sufficient quality, by which is meant a loop capable of meeting not just current demands but demands for advanced services as well. Accordingly, we disallow charges for line conditioning or grooming.[3]

Q. ARE THERE OTHER REASONS WHY BELLSOUTH SHOULD NOT BE ALLOWED TO ASSESS THE NONRECURRING LOOP CONDITIONING RATES DETAILED ABOVE?

A. Yes, there are. When BellSouth calculates monthly recurring rates for its unbundled loops, it includes expenses associated not only with constructing that facility (as described above), it also includes expenses associated with maintaining that facility in working order. BellSouth, like most other ILECs, calculates its maintenance expenses by comparing the amount of maintenance expenses it has incurred in the past (generally over the past three years), with the amount of network investment that those maintenance expenses have supported. In doing so, it develops a ratio of Expenses/Investment that it then applies to the forward-looking investments calculated within its cost studies. This process produces an estimate of maintenance expenses expected to be incurred to maintain the investment assumed within the cost study for an unbundled loop. BellSouth recovers these maintenance expenses within the monthly recurring rate for an unbundled loop.

Q. WHAT DOES BELLSOUTH'S MAINTENANCE EXPENSE HAVE TO DO WITH LOOP CONDITIONING COSTS?

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on May 5 and June 14, 2000, to become effective on October 2, 2000, Case No. 98-57 - - Phase 3 Order (issued September 29, 2000). (Massachusetts DSL Order).

[3] *In the Matter of Investigation into Collocation and Expanded Interconnection, Phase III Part C: USWC's Unbundled Network Element TELRIC Costs and Prices*, Public Service Commission of Utah, Docket No. 94-999-01, Phase III Part C Report and Order at p. 9 (June 2, 1999).

A. Whenever BellSouth's outside plant personnel are dispatched to accommodate a "move, add or change" in the BellSouth network, the expenses associated with their time and materials are booked to BellSouth's maintenance accounts. To the extent BellSouth's personnel have been dispatched to remove load coils, pare bridged tap or remove any other devices that would otherwise interfere with digital transmission, those expenses are booked to the maintenance account, and hence, are added to the monthly recurring cost for an unbundled loop (via the maintenance factor). To establish stand-alone nonrecurring loop conditioning charges like BellSouth has proposed, would serve simply to double recover those conditioning expenses.[4]

Q. IS THERE ADDITIONAL EVIDENCE WHICH SUPPORTS YOUR CONTENTION THAT BELLSOUTH ALREADY RECOVERS LOOP CONDITIONING COSTS IN ITS MAINTENANCE FACTORS?

A. Yes. In response to Broadslate's Revised First Interrogatories (Tennessee), Item No. 26, Broadslate asked BellSouth to identify the amount of conditioning expense BellSouth had booked to its accounts in years 1998-2000. I have included this as response as **Exhibit MTS-2** to this testimony. The purpose of the question was to determine how much conditioning expense was already being booked by BellSouth and, hence, how much would already be recovered in BellSouth's cost studies. BellSouth's response, as detailed below, is telling for a number of reasons:

> BellSouth does not maintain its accounting records in a manner that would permit it to provide the detailed information sought by this request. While BellSouth records the dollars (whether capital or expense) associated with an outside plant construction job, a job often includes many tasks and determining the cost incurred by the actual "conditioning" may not be separable from other

[4] Consistent with my discussion above, if BellSouth were to have performed an appropriate, forward looking cost study, it would have removed any maintenance expenses associated with maintaining obsolete network facilities (like load coils) when developing its maintenance factors for unbundled loops. Because BellSouth has not removed these expenses, and because it already recovers within its maintenance factors costs associated with removing load coils, its stand alone loop conditioning charges are actually an attempt to triple-recover conditioning costs.

> tasks. Also, even the identification of those jobs that included the removal of some portion of the plant, is dependent on the verbiage of the engineer stated in the title of the job and therefore capturing all the relevant jobs would be unlikely.

Q. WHY IS THIS RESPONSE TELLING?

A. First, this response is telling because it proves almost without doubt that BellSouth generally capitalizes conditioning expenses incurred in its own provision of services into its general growth and maintenance budgets and recovers those expenses in monthly recurring charges (indeed, BellSouth admits it could not remove these expenses from these budgets if it wanted to because they are not separately identifiable). Therefore, conditioning expenses are undeniably already included in the material investment and maintenance factors that were used to establish the unbundled loop monthly recurring rates already approved by the Commission. Allowing BellSouth to establish another set of nonrecurring charges associated with these activities would only lead to double recovery.

Second, this response highlights the fact that BellSouth does not, and has not in the past, assessed conditioning charges on its retail customers other than through monthly recurring charges via its material investment and maintenance factors (indeed, BellSouth could not even measure the amount of these costs it has incurred).

Q. HAS BELLSOUTH REFUTED THE FACT THAT IT ALREADY RECOVERS CONDITIONING EXPENSES IN ITS MONTHLY RECURRING CHARGES VIA ITS MATERIAL INVESTMENTS AND ITS MAINTENANCE FACTORS?

A. Yes, in her North Carolina Rebuttal Testimony, Ms. Caldwell stated as follows:

> BellSouth is not <u>aggressively</u> removing load coils as part of any rehabilitation initiative, and thus, the impact of the costs associated with this activity are <u>not</u>

substantially reflected in the budget information BellSouth used to develop its maintenance factor.[5] [emphasis added].

Q. DO YOU HAVE REASON TO BELIEVE THAT BELLSOUTH IS CURRENTLY, AND HAS IN THE PAST, UNDERTAKEN AGGRESSIVE CONDITIONING EFFORTS TO SUPPORT DSL AND OTHER DIGITAL SERVICES AND THAT THESE EXPENSES ARE "SUBSTANTIALLY REFLECTED?"

A. Absolutely. First, contrary to Ms. Caldwell's testimony above, it is obvious that BellSouth is/has undertaken just such an initiative. In North Carolina discovery, BellSouth provided its *Loop Technology Deployment Directive* ("Loop Deployment Directive") documentation. This is an internal document aimed at network operations personnel responsible for managing network growth and the deployment of new loop facilities. The purpose of the Loop Deployment Directive is to guide the decisions of network planners as they build, reinforce and manipulate the BellSouth network for purposes of pursuing common strategies and a consistent design approach. The most common themes throughout the Loop Deployment Directive (issued in 1998), are the need to transition the network toward a Fiber in the Loop (FITL) architecture, the need to deploy increasing amounts of digital loop carrier equipment (both fiber-fed and copper-fed carrier), and to significantly reduce the current reliance upon conditioned metallic plant so as to

Even a cursory review of the Loop Deployment Directive reveals that BellSouth's network is being migrated to a digital friendly network as quickly as possible.

[5] *Rebuttal Testimony*, page 10, Daonne Caldwell on behalf of BellSouth Telecommunications, Inc., Docket P-100, Sub 133d, Before the North Carolina Utilities Commission.

[6] *Loop Technology Deployment Directives*, file code 205.0220, RL: 98-09-019BT, date: December 8, 1998. Provided in response to New Entrants' Third Data Requests, Item No. 38, June 26, 2000, see page 1.

Second, I've included with this testimony as **Exhibit MTS-3**, a QSI analysis of BellSouth's demand for both analog and digital services over the past nine years. Demand for digital services and the facilities that will support them have been exploding in South Carolina. BellSouth's own data shows that since 1992, its demand for digital access lines has increased by 492.5% while its demand for analog lines has increased by only 32.5% over the same period. The same data shows that between 1999 and 2000, BellSouth added more than 271,505 digital access lines in South Carolina, nearly six times the number of analog lines added to its system (46,169) over the same timeframe.[7] Likewise, with the advent of competitive xDSL provisioning and exploding Internet usage growth, the anticipated demand for additional digital services and the facilities required to support them is expected to accelerate even faster. In short, BellSouth is experiencing an explosion in demand for digital services from its retail customers and its internal documents indicate that it is, and has been, working "aggressively" to ready its network to meet that demand (hence, its maintenance factors derived from the last three years' data should include substantial expenses associated with loop conditioning activities).

Q. ARE THERE OTHER BELLSOUTH DOCUMENTS THAT ARE INSTRUCTIVE REGARDING CONDITIONING EXPENSES AND HOW THEY SHOULD BE ACCOUNTED FOR?

A. Yes. BellSouth's "Facilities Design and Administration – Outside Plant Engineering" document, describes how "special construction charges" are to be charged to BellSouth's

[7] All BellSouth access line data is taken from *Automated Record Management Information System* (ARMIS) data supplied by BellSouth to the FCC. Compilation of this data as used in this testimony can be found in **Exhibit MTS-3**.

retail customers.[8] Special Construction charges are defined as "extraordinary expenses associated with Customer DS1 provisioning"[9] and they are to be passed "on to the customer in the form of an initial non-recurring charge, should they apply."[10] However, the document sets out a list of situations in which the special construction charges should not apply. The document states that removing load coils and bridged tap is a special construction charge that should not be passed on to the retail customer. In other words, the conditioning of copper pairs to support BellSouth's retail digital services is treated as a part of network planning, not as charges to be recovered from retail customers in nonrecurring charges.

> Maintenance expenses associated with providing all services are included in the annual maintenance expense factor in the pricing of any service. Therefore, outside plant rearrangements, such as unloading/loading cable pairs, removing bridged taps, line and station transfers or cable throws, required to provide a service are not to be considered for a Special Construction Charge.[11]

Q. HOW DOES THE INFORMATION ABOVE CONTRADICT MS. CALDWELL'S TESTIMONY?

A. The information above demonstrates that BellSouth is indeed migrating its network toward a more digital supportive architecture. In the process, it is deploying larger amounts of digital loop carrier equipment that is freeing-up copper facilities that can be conditioned (where necessary) and used/reserved for digital services. Likewise, to support its own digital services offerings, BellSouth instructs its technicians to move existing voice grade customers to DSL facilities so that the copper facilities they currently use can be made available to support digital services. Finally, BellSouth's

[8] North Carolina Docket No. P-100, Sub 133d, MCI WorldCom First Data Requests to BellSouth, Item 10, DS1 Facilities Design and Administration – Outside Plant Engineering, BSP, 915-700-001SV, Issue A, September 1989 (the "Facilities Design Methods").
[9] *Id.*, p.6.
[10] *Id.*
[11] *Id.*, p. 7 (emphasis added).

documentation requires that expenses associated with these activities be

[12]

Q. WHY WOULD BELLSOUTH RECOVER CONDITIONING EXPENSES IN ITS GROWTH BUDGETS AND WITHIN MAINTENANCE FACTORS?

A. Loop conditioning activities and the expenses they generate are actually an *investment* in the network, not a non-recurring *expense*, and like all other investments, they are most efficiently recovered over time from all users of the network. The Commission need only look at how BellSouth accounted for the expenses associated with first conditioning the loop by placing the load coil on the facility to understand the error of BellSouth's proposal in this case. The expenses associated with originally placing the load coil (truly "conditioning" the loop for voice grade services) was considered an investment in the network and no one-time fees were assessed to recover those expenses. These expenses were simply capitalized with the investment in the cable and wire facilities constituting the loop and included in the direct cost of a loop. Hence, it makes little sense to recover expenses associated removing these very same devices (again for purposes of "conditioning" the loop) in exactly the opposite fashion.

Q. HAVE OTHER STATE COMMISSIONS RECOGNIZED THE DOUBLE RECOVERY OPPORTUNITIES ASSOCIATED WITH RECOVERING CONDITIONING COSTS IN MAINTENANCE FACTORS AS WELL AS IN STAND-ALONE, NONRECURRING CHARGES?

A. Yes, they have. For example, the Oregon Public Utility Commission In its Order No. 98-444 in Docket Nos. UT-138 and UT-139, which was entered in November 13, 1998, stated that "USWC concedes that the labor costs associated with unloading loops are

[12] See Table I1, Page 1, *Loop Deployment Directive.*

currently included in the maintenance factor used to develop recurring costs." The Oregon Commission then went on to set loop conditioning charge to $0.

Q. ARE THERE ECONOMIC REPERCUSSIONS THAT WILL RESULT FROM ASSESSING NONRECURRING CHARGES FOR CONDITIONING ACTIVITIES?

A. Of course. In addition to the obvious economic impact of allowing BellSouth to double-recover these expenses, there are also problems inherent in using nonrecurring charges to recover these expenses. Recovering *investments* via nonrecurring charges always penalize the "first man in" to the benefit of all that follow. An example best demonstrates this point. Assume that CLEC-A is successful in marketing its ADSL services to Customer X. Customer X is currently served by a copper loop that includes load coils. Under BellSouth's current approach, if CLEC-A were to serve this customer, it would be responsible for paying all expense associated with removing load coils from the subscriber's loop (and, absent "eating" those expenses, the CLEC would need to pass those expenses along to its customer). Assume that 6 months later, Customer X takes advantage of a BellSouth ADSL marketing promotion. When BellSouth provides ADSL services to Customer X, there are no load coils and no investment in load coil removal that must be made to serve the customer, indeed CLEC-A has already undertaken the investment necessary to make Customer X's line digital-ready. BellSouth, in such a circumstance, has a tremendous competitive advantage over CLEC-A because it can market services to the customer without facing the same acquisition costs that faced CLEC-A (indeed, BellSouth or any other CLEC could market services only to existing clients of other carriers, thereby completely avoiding loop conditioning expenses, even

though the services they would offer would benefit from loop conditioning efforts). Of course, the same is true if the tables are turned. If BellSouth "paid" to have the load coils removed, CLEC-A could solicit the customers' business without incurring the same costs. Regardless of who "wins" or "loses" under this scenario, the proper economic incentives have been skewed and inefficiency will be the ultimate result.

Q. WHAT IS THE BEST WAY TO AVOID THE ECONOMIC REPERCUSSIONS DISCUSSED ABOVE?

A. If the Commission believes that BellSouth should be allowed to recover from CLECs expenses associated with conditioning its outside plant, and it believes that BellSouth's maintenance charges and growth budgets already included in its monthly recurring unbundled loop rates are insufficient for recovering these expenses, it should at a bare minimum require BellSouth to recover any unrecovered loop conditioning expenses in a monthly recurring charge assessed on all digital capable loops (both UNEs and retail loops). At least in this fashion, BellSouth will be required to recover some of the conditioning investment in an economically rational manner (i.e., over time by the parties that use those conditioned facilities) and from all parties who benefit (including its own retail business units). In North Carolina I recommended that if the Commission believed this was the most reasonable approach, a monthly recurring rate additive of pennies per loop was reasonable. This same rate would provide a reasonable recovery mechanism in South Carolina as well.[13]

Q. HAVE OTHER RBOCS BEGAN TO ADOPT THIS APPROACH?

[13] It is important not to confuse my additive proposal with that of BellSouth's. BellSouth's proposal would assess its "additive" in addition to its nonrecurring conditioning charges. My proposed additive above would constitute the entirety of BellSouth's cost recovery for conditioning activities.

A. Yes. Though I believe RBOCs are beginning to adopt a monthly recurring additive because they realize closer scrutiny in a litigated proceeding highlights the fact that they are already recovery these expenses via their many cost factors (as I've described above), none-the-less, it is obvious that at least one RBOC (SBC) has embraced the wisdom of recovering these charges via monthly recurring rates similar to the additive I've proposed above.[14]

Q. ASSUME THE COMMISSION BELIEVES THAT BELLSOUTH SHOULD BE ALLOWED TO RECOVER LOOP CONDITIONING EXPENSES VIA A STAND ALONE, NONRECURRING CHARGE, ARE THE CHARGES PROPOSED BY BELLSOUTH REASONABLE?

A. No, they are not. BellSouth's cost studies supporting its proposed rates include a number of erroneous and unreasonable assumptions. I've categorized BellSouth's errors as follows:

(1) BellSouth assumes that it will condition only 10 loops whenever it dispatches its outside plant personnel for loops less than 18,000 feet in length. Further, BellSouth assumes that it will condition only 2 loops at a time for dispatches on outside plant that exceeds 18,000 feet in length. The stated reason for this practice is to minimize the quantity of voice grade circuits that will be unavailable for transmission of voice grade level service. The vast majority of expenses associated with conditioning a loop are expenses associated with traveling to, and preparing, the conditioning site. Hence, the more loops that can be conditioned on any single dispatch dramatically reduces the average cost of conditioning a loop. Given these cost characteristics and the exploding demand for digital services BellSouth is experiencing, as mentioned earlier, BellSouth should endeavor to condition as many loops as it can on each dispatch. On average, it is reasonable to assume that BellSouth will condition 50 loops on each dispatch.

(2) BellSouth assumes that
of the time when dispatched to remove load coils

[14] See SBC's "Accessible Letter" (CLEC_00-234) dated November 15, 2000. Within the newly issued Accessible Letter SBC provides CLECs the option to pay for conditioning expenses within the monthly recurring charges (via an additive) for unbundled loops. While SBC's proposed additive is excessive, the concept of recovering loop conditioning costs in recurring charges is more reasonable than SBC's previous (and BellSouth's current) position.

from a loop, the "load point" will be found in an underground environment wherein BellSouth's technicians will need to access the cable via a manhole. Accessing cable facilities in manhole environments requires significantly more time for site preparation than does accessing cables in aerial and buried situations (13 times as long according to BellSouth's cost studies). BellSouth includes no support for its assumption that such a large amount of its "load points" will be found in expensive and time consuming manhole environments. Indeed, its own cost studies suggest that less than 60% of its copper plant is found in manhole environments, a percentage consistent with an assumption included in a number of Sprint ILEC cost studies that were available in both North Carolina and Tennessee. It is reasonable to assume that BellSouth's technicians will be required to unload facilities in manhole environments only 60% of the time with the remainder of those deloading activities occurring in less expensive aerial and buried environments.

(3) BellSouth significantly overstates the amount of time required to perform deloading (and bridged tap removal) activities. Mr. Fassett suggests much more reasonable task times in his testimony.

Q. WHY DOES THE COMPETITIVE COALITION PROPOSE THAT BELLSOUTH RECOVER CHARGES BASED ON CONDITIONING 50 LOOPS AT A TIME?

A. First, as Mr. Fassett notes from his 30 years of telecommunications experience, BellSouth should be able to deload an average of 50 loops per dispatch. Of course, there are likely to be situations wherein a particular cable route is being utilized so heavily by voice grade services that 50 loops cannot be conditioned (though with the accelerating deployment of digital loop carrier equipment, as explained later, these types of routes should become far less common). However, there are also likely to be situations wherein 100, 200 or 500 loops could be conditioned in a single dispatch. On average, Mr. Fassett believes, based upon his experience, that 50 loops is a reasonable number of loops to be included in the cost study.

Q: HAS BELLSOUTH PROPOSED FILL RATES THAT WOULD SUPPORT THE CLEC COALITION'S POSITION ON CONDITIONING 50 PAIR AT A TIME?

A. Yes. BellSouth has already assumed within its unbundled loop study (via its fill factor

assumptions) that it will maintain a large portion of its loop plant as "spare facilities." In other jurisdictions BellSouth has assumed that 35% to 50% of its entire network will be vacant and unassigned to existing customers. BellSouth cannot assume such low utilization within its unbundled loop studies for purposes of charging higher unbundled loop rates, and then completely ignore these assumptions in establishing rates for conditioning. Fill rates of 50%-60% should provide ample spare facilities for purposes of conditioning an average of at least 50 copper pairs on a single dispatch.

Q. DOES BELLSOUTH INCLUDE ANY INFORMATION IN ITS COST STUDIES TO SUPPORT ITS ASSUMPTION THAT

OF ALL DELOADING ACTIVITY WILL BE ACCOMPLISHED IN EXPENSIVE MANHOLE ENVIRONMENTS?

A. No, it does not. In the North Carolina hearings BellSouth admitted that the was simply an assumption made by one of its subject matter experts. BellSouth did not review its own outside plant documentation or any other network information for purposes of arriving at this assumption.

Q. IS THERE INFORMATION AVAILABLE THAT SPECIFICALLY CONTRADICTS BELLSOUTH'S ASSUMPTION?

A. Yes, there is. Telecommunications networks generally employ underground facilities (i.e., facilities placed in conduit and accessible primarily by manhole systems), in the more urban areas of their serving territory. It is common for a central office (particularly an urban or suburban central office) to be served by a substantial system of manholes that support copper and fiber cables initially extending from the central office. However, as those facilities extend further from the central office they migrate out of the underground-manhole system to aerial or direct-buried facilities. Load coils are placed

on loops longer than 18,000 feet in length pursuant to industry standards with each load coil being placed every 6,000 foot with the first "load" being placed anywhere from 3,000 feet to 6,000 feet from the central office. Hence, while it may be reasonable to assume that some number of load coils at the first "load point" may be in underground facilities, second and third "loads" will most likely not be encountered in these same underground/manhole environments. As such, BellSouth's assumption that

of all unloading activity will occur in a manhole environment (even 2nd and 3rd "loads" that are almost certainly not to be found in an underground/manhole environment), is unreasonable.

Q. EARLIER YOU MENTIONED A SPRINT STUDY THAT CONTRADICTED THE BELLSOUTH STUDY. PLEASE EXPLAIN THE SPRINT STUDY AND IT SIGNIFICANCE IN MORE DETAIL.

A. In both North Carolina and Tennessee, Sprint's ILEC affiliate provides local exchange services to a portion of the state. Hence, in those states, Sprint was required to perform a loop conditioning study much like BellSouth has here. Instead of relying upon unsubstantiated opinions from subject matter experts, Sprint undertook a study to determine what percentage of its anticipated load coil removal points would be encountered in expensive manhole environments versus less costly aerial and buried environments. Sprint arrived at the following percentages and used those percentages in deriving its loop conditioning costs.

LOAD POINT #1:	
Remove Load in Underground Cable (Manhole)	52.6%
Remove Load in Aerial Cable	41.9%
Remove Load in Buried Cable	5.5%

LOAD POINT #2:	
Remove Load in Underground Cable (Manhole)	31.6%
Remove Load in Aerial Cable	62.7%
Remove Load in Buried Cable	5.7%

Sprint's analysis of its actual network yields strikingly dissimilar results when compared to the estimate provided by BellSouth's "subject matter expert." Sprint's analysis yields results far more intuitive given the way in which outside plant is loaded and the general architecture of most local exchange networks.

Q. WOULD YOU RECOMMEND THAT THE COMMISSION REVISE BELLSOUTH'S ESTIMATE THAT IT WILL, OF THE TIME, BE REQUIRED TO REMOVE LOAD COILS IN UNDERGROUND ENVIRONMENTS VIA ACCESSING A MANHOLE?

A. Yes, I would. Mr. Fassett in his testimony provides an assumption regarding the probability of encountering load coils in underground/manhole environments that is far more comparable to the Sprint data highlighted above and far more reasonable than BellSouth's proposal. The Commission should reject BellSouth's proposal and adopt Mr. Fassett's.

Q. PLEASE EXPLAIN HOW BELLSOUTH'S COST STUDY OVERSTATES THE AMOUNT OF TIME REQUIRED TO PERFORM THE TASKS REQUIRED TO REMOVE LOAD COILS AND/OR REMOVE BRIDGED TAP?

A. Mr. Fassett's testimony includes a detailed review of each of the work functions included in the BellSouth loop conditioning study and the amount of time BellSouth estimates will be need to perform those functions. Mr. Fassett concludes that BellSouth has significantly overestimated the amount of time it will require to perform the work functions at issue. Mr. Fassett includes in his testimony more reasonable worktimes that the Commission should require BellSouth to use within its loop conditioning study.

Q. HAVE YOU BEEN ABLE TO RECALCULATE MORE REASONABLE LOOP CONDITIONING COSTS THAT THE COMMISSION SHOULD ADOPT IF IT DECIDES SEPARATE, NONRECURRING CHARGES ARE APPROPRIATE?

A. Yes, I have. The following table details more reasonable loop conditioning rates that should be adopted if the Commission decides that separate, nonrecurring loop conditioning rates are appropriate. The following rates were calculated by modifying BellSouth's loop conditioning study to incorporate the more reasonable assumptions and inputs discussed above and included in Mr. Fassett's testimony. Revised outputs from the BellSouth TELRIC Calculator consistent with the rates below are provided as Exhibit MTS-4.

REVISED BELLSOUTH LOOP CONDITIONING RATES		Non-Recurring Charge (first)
A.17	LOOP CONDITIONING - Rate Elements	
A.17.1	Unbundled Loop Modification - Load Coil / Equipment Removal - short	$0.00
A.17.2	Unbundled Loop Modification - Load Coil / Equipment Removal - long	$5.95
A.17.3	Unbundled Loop Modification - Bridged Tap Removal	$3.92

IV. BELLSOUTH'S LOOP CONDITIONING "ADDITIVE"

Q. WHAT IS BELLSOUTH'S LOOP CONDITIONING ADDITIVE.

A. Mr. Latham describes the Unbundled Loop Modification ("ULM") Additive" at page 7 of his Direct Testimony. In essence, the ULM-Additive is a non-recurring charge BellSouth intends to assess on each UCL - Short, ADSL and HDSL unbundled loop (i..e., all DSL related loops less than 18K feet) purchased by a CLEC. This $12.98 charge would be added to the cost of any new or xDSL loop—whether or not it requires conditioning. If a loop requires conditioning, the additive would be charged on top of the $64.91 conditioning charge. The purpose of the Additive, as described by Mr. Latham, is to account for the fact that BellSouth's current proposed non-recurring charges for loop conditioning (primarily the UCL-short, ADSL and HDSL loops), fail to recover the conditioning costs associated with 4 out of every 10 loops. This results from the fact that BellSouth's proposal originally assumed that 10 loops would be conditioned when a CLEC requested that a particular loop be conditioned. BellSouth derived its individual loop conditioning rates by dividing its expenses by 10. BellSouth now claims that those rates failed to account for the fact that 4 out of 10 loops would not be purchased or used at that time and, hence, absent an additive, 40% of BellSouth's conditioning costs (4/10) would go unrecovered. Again, BellSouth proposes to charge CLECs the Additive even if the particular loop ordered by the CLEC does not require conditioning.

Q. IS BELLSOUTH'S "ADDITIVE" CHARGE APPROPRIATE?

A. No. First, a forward looking network would not have any load coils placed on loops. Therefore, under the FCC's pricing methodology, there could be no cost assessed for removal of load coils since those would not exist in the forward looking network being costed. Second, even if the Commission did allow BellSouth to charge for conditioning,

BellSouth's time estimates for conditioning work are grossly inflated. Since the costs of the additive flow from these inflated work times, the additive is likewise unsupportable. Third, expenses BellSouth incurs for conditioning its outside plant are recovered in the recurring rates BellSouth currently charges for unbundled loops. BellSouth's maintenance factors and the manner by which it derives its material investment information (i.e., its material budget information) already incorporate expenses associated with removing load coils and bridged tap in the monthly recurring rates for a loop. BellSouth does not impose a nonrecurring charge for conditioning loops for its own retail T-1, ISDN, or DS1 loops. Moreover, it does not impose a conditioning nonrecurring charge for UNE ISDN, T-1 or DS1 loops. Those loops are simply conditioned as a part of the provisioning process and the cost for that conditioning is presumably recovered in the recurring cost of the loop. The same should be true of DSL loops. Fourth, BellSouth's entire loop conditioning approach (i.e., CLECs should bear the largest portion of BellSouth's conditioning expenses) is flawed.

Q. EXPLAIN HOW BELLSOUTH'S APPROACH IS FLAWED.

A. To the extent any expenses BellSouth will incur to condition its own network for purposes of supporting a larger number of digital services are not already recovered on a recurring basis, BellSouth should identify the unrecovered conditioning expenses and develop a monthly recurring cost associated with removing those devices. This is the proper methodology given the fact that removing load coils and rearranging outside plant to remove bridged tap is an investment in the BellSouth network aimed at preparing the network to support larger numbers of digital circuits. Given the clear demand for digital services, these investments ultimately accrue to BellSouth and its shareholders. Investments in BellSouth's network should be recovered from the number of carriers/consumers (including BellSouth) who will benefit from those investments over

their economic life (i.e., in recurring charges). BellSouth's own digital access line growth in South Carolina over the past 9 years has been staggering (indeed **Exhibit MTS-3** shows that BellSouth has provisioned more than 432,000 new digital circuits in the past three years alone), surpassing growth in its analog line demand both in terms of growth percentage, as well as in total number of new access lines provisioned. Hence, especially BellSouth, benefits from conditioning BellSouth's outside plant network.

Q. WILL BELLSOUTH'S "ADDITIVE" LEAD TO OVER RECOVER OF BELLSOUTH'S CONDITIONING EXPENSES?

A. Yes, it will.

Q. WHAT ASSUMPTIONS UNDERLYING BELLSOUTH'S ADDITIVE WILL CREATE OVERRECOVERY?

A. There are several. First, the additive is supposedly needed to recover conditioning costs for loops other than the one ordered by the CLEC that triggered the conditioning work. Since BellSouth now agrees that it will condition 10 loops at a time for loops less than 18,000 feet, it makes the following assumptions about who will use the conditioned loops: CLEC will use 2 loops, BellSouth will use 4 loops, and the cost for conditioning the remaining 4 will go unrecovered. Thus, 40% of the costs for conditioning 10 loops are assessed by BellSouth in its additive.

These assumptions will lead to excessive over recovery by BellSouth in several ways. First, BellSouth assumes that it will use only 4 of the 10 loops it conditions at one time. If, however, BellSouth uses 5 or more of those loops, it will be over recovering from CLECs for conditioning since BellSouth's retail arm will not be paying any of the additive supposedly necessary to recover the costs of conditioning the last 4 loops. Given its already staggering digital access line growth and its aggressive plan for rolling

out its own DSL services, BellSouth will undoubtedly use the majority of loops available after conditioning. Certainly, it can be expected to use more than 40% of those loops (i.e., 4/10). Second, BellSouth assumes that the additive will only be imposed on CLEC ordered DSL loops. To decide how to calculate the number of DSL loops that will be ordered and thus how many loops must bear this burden of the additive, BellSouth proposes absurdly low DSL demand numbers. These assumptions further weaken the already feeble basis for assessing any additive. While I would agree that non-recurring rates for ADSL, HDSL and UCL loops consistent with those proposed by BellSouth in this proceeding will significantly dampen demand for DSL related loops and likewise quell competition in BellSouth's serving territory (perhaps even to the paltry amount assumed by BellSouth in calculating its additive), it is our hope that the Commission will significantly reduce BellSouth's inflated rates, thereby paving the way for a robust competitive advanced services marketplace. In any event, BellSouth's projected demand for competitor-ordered DSL related UNEs is far below reasonable levels.

Q. ARE THERE OTHER PROBLEMS WITH BELLSOUTH'S "ADDITIVE" APPROACH?

A. Yes. Calculating the ULM-Additive using the assumption that only 10 cable pairs are conditioned at one time is no more appropriate in recovering conditioning costs than it is for calculating the stand-alone loop conditioning charge on the same basis.

Further, BellSouth's approach fails to consider the vast number of retail digital circuits that BellSouth will be required to provision over the next few years and the extent to which BellSouth should bear some burden for the conditioning expenses it is attempting to foist on its competitors. In **Exhibit MTS-3**, I highlight the fact that BellSouth has, over the past three years alone, been required to provision more than 432,000 retail

digital circuits in South Carolina. Some portion of these digital circuits will require conditioned loops. BellSouth's loop conditioning additive calculations largely ignore these retail loops when estimating the proper manner by which to recover BellSouth's conditioning expenses.

In short, BellSouth's loop conditioning approach, through both its stand-alone loop conditioning rates and its additive, are unnecessarily focused on recovering conditioning expenses from CLECs while ignoring the benefits that BellSouth's own retail services will accrue from this conditioning initiative. The Commission should reject both BellSouth's stand-alone loop conditioning rates and its additive (that includes load coil removal, bridged tap removal and the additive for both short and long UCL loops and the ADSL/HDSL loop).

Q. IF THE COMMISSION REJECTS BELLSOUTH'S LOOP CONDITIONING RATES AS YOU PROPOSE, HOW WILL BELLSOUTH RECOVER COSTS IT WILL INCUR AS CLECS REQUIRE CONDITIONED LOOPS?

A. As I have discussed above, load coils will not be found in a forward looking network and therefore there should be not charge assessed for removing these embedded devices in the existing network. Moreover, expenses associated with these activities are already addressed in BellSouth's monthly recurring loop rates. Hence, no stand-alone rates are necessary to ensure that BellSouth recovers its expenses. However, to the extent the Commission wishes to allow any additive whatsoever, I have devised a method by which BellSouth should be allowed to recover the entirety of its loop conditioning expenses via a stand-alone rate additive.

Q. ASSUMING SOME STAND-ALONE LOOP CONDITIONING COST RECOVERY MECHANISM IS REQUIRED, AN ASSUMPTION THE CLEC COALITION REJECTS, PLEASE EXPLAIN HOW THE COMMISSION SHOULD STRUCTURE SUCH A CHARGE.

A. The proper method by which to recover loop conditioning costs must be based upon the following principles:

1. After conditioning a loop (or a number of loops), that loop can support the digital service of any carrier, including any CLEC and/or BellSouth, over the economic life of the facility. Hence, those conditioning expenses must be viewed as investments in the network (e.g., just as originally placing the load coils was) and recovered as monthly recurring costs over the life of the facility.

2. Conditioning provides digital-ready facilities within the network for all carriers and all digital services. Hence, each digital service that can be supported by the conditioned loop should recover some amount of the conditioning expense (i.e., DSL, ISDN, T-1, etc.).

3. Conditioning activities should be accomplished as efficiently as possible. Because digital service demand is outpacing voice demand, as many copper pairs as possible should be conditioned at each dispatch limiting the amount of conditioning only to the extent necessary to maintain an adequate level of voice grade facilities. On average, at least 50 pair should be able to be conditioned per dispatch.

Based upon these principles, the Commission should establish a monthly conditioning "Additive" that would be applied to each CLEC purchased UCL, ADSL and HDSL loop. The monthly additive should be calculated by the following process:

1. Determine the number of conditioning dollars BellSouth will spend over the next 4 years to meet its own demand for digital services and to accommodate the conditioning demands of the CLECs (based upon efficient conditioning practices wherein at least 50 pair can be conditioned per dispatch).

2. Annualize that conditioning "investment" into a yearly expense using the annual charge factors for underground copper cable.[15]

3. Divide that total conditioning expense by the number of digital-capable loops that will be demanded over that same period.

4. Divide by 12 to arrive at a monthly, per loop conditioning "Additive" that would be applied to each digital-capable loop for purposes of recovering the entirety of BellSouth's conditioning expenses.

Q. WOULD THE MONTHLY RECURRING ADDITIVE YOU HAVE PROPOSED BE ASSESSED IN ADDITION TO THE STAND-ALONE LOOP CONDITIONING CHARGES PROPOSED BY BELLSOUTH AND IN LIEU OF BELLSOUTH'S ADDITIVE?

A. No. The additive I have proposed would be charged instead of BellSouth's stand-alone loop conditioning charges and its additive. The per month, per loop charge would recover the entirety of BellSouth's loop conditioning expenses over the next four years such that no other loop conditioning charges would be appropriate.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

[15] I assume the use of the underground copper cable annual charge factor because BellSouth assumes that 90% of its conditioning efforts will be done in underground/manhole environments on underground copper cable.

EXHIBIT 1

QSI CONSULTING
Market Solutions • Litigation Support

Schedule MTS-1

MICHAEL STARKEY
PROFESSIONAL INFORMATION

CONTACT INFORMATION:

QSI Consulting, Inc.
1918 Merlin Drive
Jefferson City, Missouri 65101

phone: 573.638.2681
fax: 573.638.2683

e-mail: mstarkey@qsiconsulting.com

CURRENT POSITION:

President and Founding Partner, QSI Consulting, Inc.

PROFESSIONAL EXPERIENCE:

Competitive Strategies Group, Ltd.
Founding Partner
Senior Vice President and Managing Director of Telecommunications Services

Maryland Public Service Commission
Telecommunications Division
Director

Illinois Commerce Commission
Office of Policy and Planning
Senior Telecommunications Policy Analyst

Missouri Public Service Commission
Utility Operations Division
Telecommunications Department
Economist

EDUCATION:

B.S. Economics / International Marketing
- Southwest Missouri State University, Springfield, Missouri
- *Cum Laude* Honor Graduate

Graduate Coursework, Finance
- Southwest Missouri State University, Springfield, Missouri
- Lincoln University, Jefferson City, Missouri

MICHAEL STARKEY
PROFESSIONAL INFORMATION

Professional Activities

- Former member of the Missouri Public Service Commission's Task Force on FCC Docket Nos. 91-141 and 91-213 regarding expanded interconnection, collocation, and access transport restructure
- Former member of the AT&T / Missouri Commission Staff, *Total Quality Management Forum* responsible for improving and streamlining the regulatory process for competitive carriers
- Former member of the Missouri, Oklahoma, Kansas, Texas, and Arkansas five state Southwestern Bell Open Network Architecture (ONA) Oversight Conference
- Former delegate to the Illinois, Michigan, Indiana, Ohio, and Wisconsin Ameritech Regional Regulatory Conference (ARRC) charged with the responsibility of analyzing Ameritech's "Customers First" local exchange competitive framework for formulation of recommendations to the FCC and the U.S. Department of Justice
- Former member of both the Illinois and Maryland Local Number Portability Industry Consortiums responsible for developing and implementing a permanent data-base number portability solution

Testimony Profile and Experience

Before the Wisconsin Public Service Commission
Docket No. 6720-TI-160
Investigation into Ameritech Wisconsin Operational Support Systems
On behalf of McLeodUSA, TDS MetroCom and Rhythms Link, Inc.

Before the Public Utilities Commission of the State of Hawaii
Docket No. 7702, Phase III
Instituting a Proceeding on Communications, Including an Investigation of the Communications Infrastructure of the State of Hawaii
On behalf of GST Telecom Hawaii, Inc.

Before the North Carolina Utilities Commission
Docket P100 Sub 133d, Phase II
General Proceeding to Determine Permanent Pricing for Unbundled Network elements
On behalf of a consortium of 13 new entrant carriers

Before the Federal Communications Commission
CCB/CPD No. 00-1
In the Matter of Wisconsin Public Service Commission Order Directing Filings
On behalf of the Wisconsin Pay Telephone Association

Before the North Carolina Utilities Commission
Docket P100 Sub 133d, Phase I

MICHAEL STARKEY
PROFESSIONAL INFORMATION

General Proceeding to Determine Permanent Pricing for Unbundled Network elements
On behalf of a consortium of 13 new entrant carriers

Before the Public Utilities Commission of the State of California
Rulemaking 0-02-05
Order Instituting Rulemaking on the Commission's Own Motion into reciprocal compensation for telephone traffic transmitted to Internet Service Providers modems
On behalf of ICG Telecom Group, Inc.

Before the Public Utilities Commission of the State of Colorado
Docket No. 00B-103T
In the Matter of Petition by ICG Telecom Group, Inc. for Arbitration of an Interconnection Agreement with US West Communications, Inc. Pursuant to Section 252(b) of the Telecommunications Act of 1996.
On behalf of ICG Telecom Group, Inc.

Before the Delaware Public Service Commission
PSC Docket No. 00-205
For Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Bell Atlantic – Delaware, Inc.
On behalf of Focal Communications Corporation of Pennsylvania

Before the Georgia Public Service Commission
Case No. 11641-U
Petition of Bluestar Networks, Inc. for Arbitration with BellSouthDocket No. 11641-U Telecommunications, Inc. pursuant to Section 252(b) of the Telecommunications Act of 1996
On behalf of BlueStar Networks, Inc.

Before the New Jersey Board of Public Utilities
Docket No. TO00030163
For Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Bell Atlantic-New Jersey, Inc.
On behalf of Focal Communications Corporation

Before the Pennsylvania Public Utility Commission
Docket No. A-310630F.0002
For Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Bell Atlantic-Pennsylvania
On behalf of Focal Communications Corporation

Before the Michigan Public Service Commission
Case No. U-12287
In the matter of the application, or in the alternative, complaint of AT&T COMMUNICATIONS OF MICHIGAN, INC. against Michigan Bell Telephone Company, D/B/A, Ameritech Michigan
On behalf of AT&T Communications of Michigan, Inc.

Before the Missouri Public Service Commission
Case No. 99-483
An Investigation for the Purpose of Clarifying and Determining Certain aspects Surrounding the Provisioning Of Metropolitan Calling Area Services After the Passage and Implementation Of the Telecommunications Act of 1996

MICHAEL STARKEY
PROFESSIONAL INFORMATION

On behalf of McLeodUSA Telecommunications Services, Inc.

Before the Illinois Commerce Commission
Docket No. 98-0396
Investigation into the compliance of Illinois Bell Telephone Company with the order in Docket 96-0486/0569 Consolidated regarding the filing of tariffs and the accompanying cost studies for interconnection, unbundled network elements and local transport and termination and regarding end to end bundling issues.
On behalf of AT&T Communications of Illinois, Inc. and McLeodUSA Telecommunications Services, Inc.

Before the Illinois Commerce Commission
Docket No. 99-0593
Investigation of Construction Charges
On behalf of McLeodUSA Telecommunications Services, Inc., MCI WorldCom, Inc. and Allegiance Telecom, Inc.

Before the Public Service Commission of Wisconsin
Case No. 05-TI-283
Investigation of the Compensation Arrangements for the Exchange of Traffic Directed to Internet Service Providers
On behalf of AT&T Communications of Wisconsin, AT&T Local Services, KMC Telecom, Inc., MCI WorldCom, Inc., McLeodUSA Telecommunications Services, Inc., TDS MetroComm, Time Warner Telecom

Before the Public Utility Commission of Texas
Docket No. 21982
Proceeding to Examine Reciprocal Compensation Pursuant to Section 252 of the Federal Telecommunications Act of 1996
On behalf of ICG Communications, Inc.

Before the Public Service Commission of the Commonwealth of Kentucky
Case No. 99-498
Petition of BlueStar Networks, Inc. for Arbitration with BellSouth Telecommunications, Inc. Pursuant to Section 252 of the Telecommunications Act of 1996.
On behalf of BlueStar Networks, Inc.

Before the Illinois Commerce Commission
Docket No. 00-0027
Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Illinois Bell Telephone Company d/b/a Ameritech Illinois.
On behalf of Focal Communications Corporation of Illinois

Before The Indiana Utility Regulatory Commission
Cause No. 41570
In the Matter of the Complaint of McLeodUSA Telecommunications Services, Inc. against Indiana Bell Telephone Company, Incorporated, d/b/a Ameritech Indiana, Pursuant to the Provisions of I.C. §§ 8-1-2-54, 81-12-68, 8-1-2-103 and 8-1-2-104 Concerning the Imposition of Special Construction Charges.
On behalf of McLeodUSA Telecommunications Services, Inc.

MICHAEL STARKEY
PROFESSIONAL INFORMATION

Before the Florida Public Service Commission
Docket No. 991838-TP
Petition for Arbitration of BlueStar Networks, Inc. with BellSouth Telecommunications, Inc. Pursuant to the Telecommunications Act of 1996
On behalf of BlueStar Networks, Inc.

Before the Public Utility Commission of Ohio
Case No. 99-1153-TP-ARB
In the Matter of ICG Telecom Group, Inc.'s Petition For Arbitration of Interconnection Rates, Terms and Conditions and Related Arrangements with Ameritech Ohio
On behalf of ICG Telecom Group, Inc.

Before the Public Utility Commission of Oregon
ARB 154
Petition for Arbitration of GST Telecom Oregon, Inc. Against US West Communications, Inc. Under 47 U.S.C. §252(b)
On behalf of GST Telecom Oregon, Inc.

Before the Michigan Public Service Commission
Docket No. U-12072
In the matter of the application and complaint of WORLDCOM TECHNOLOGIES INC. (f/k/a MFS INTELENET OF MICHIGAN, INC., an MCI WORLDCOM company) against MICHIGAN BELL TELEPHONE COMPANY d/b/a AMERITEHC MICHIGAN, AMERITECH SERVICES, INC., AMERITECH INFORMATION INDUSTRY SERVICES, AND AMERITECH LONG DISTANCT INDUSTRY SERVICES relating to unbundled interoffice transport.
On behalf of WorldCom Technologies, Inc.

Before the Illinois Commerce Commission
Docket No. 99-0525
Ovation Communications, Inc. d/b/a McLeodUSA, Complaint Against Illinois Bell Telephone Company d/b/a Ameritech Illinois, Under Sections 13-514 and 13-515 of the Public Utilities Act Concerning the Imposition of Special Construction Charges and Seeking Emergency Relief Pursuant to Section 13-515(e)
On behalf of McLeodUSA

Before the Public Service Commission of the Commonwealth of Kentucky
Case No. 99-218
Petition of ICG Telecom Group, Inc. for Arbitration with BellSouth Telecommunications, Inc. Pursuant to Section 252 of the Telecommunications Act of 1996.
On behalf of ICG Telecom Group, Inc.

Before the Tennessee Regulatory Authority
Docket No. 1999-259-C
Petition for Arbitration of ITC^DeltaCom Communications, Inc. with BellSouth Telecommunications, Inc. Pursuant to the Telecommunications Act of 1996
On behalf of ICG Communications, Inc.

Before the New Mexico Public Regulation Commission
Case No. 3131

MICHAEL STARKEY
PROFESSIONAL INFORMATION

In the Matter of GST Telecom New Mexico, Inc.'s Petition for Arbitration Against US West Communications, Inc., Under 47 U.S.C. § 252(b).
On behalf of GST Telecom New Mexico, Inc.

Before the Georgia Public Service Commission
Docket No. 10767-U
Petition of ICG Telecom Group, Inc. for Arbitration with BellSouth Telecommunications, Inc. Pursuant to Section 252 of the Telecommunications Act of 1996.
On behalf of ICG Telecom Group, Inc.

Before the Public Service Commission of New York
Case No. 99-C-0529
Proceeding on Motion of the Commission to Re-examine Reciprocal Compensation
On behalf of Focal Communications, Inc.

Before the Florida Public Service Commission
Docket No. 990691-TP
Petition by ICG Telecom Group, Inc. for Arbitration of an Interconnection Agreement with BellSouth Telecommunications, Inc. Pursuant to Section 252(b) of the Telecommunications Act of 1996
On behalf of ICG Telecom Group, Inc.

Before the Louisiana Public Service Commission
Docket No. U-24206
Petition for Arbitration of ITC^DeltaCom Communications, Inc. with BellSouth Telecommunications, Inc. Pursuant to the Telecommunications Act of 1996
On behalf of ITC^DeltaCom, Inc.

Before the South Carolina Public Service Commission
Docket No. 199-259-C
Petition for Arbitration of ITC^DeltaCom Communications, Inc. with BellSouth Telecommunications, Inc. Pursuant to the Telecommunications Act of 1996
On behalf of ITC^DeltaCom, Inc.

Before the Alabama Public Service Commission
Docket No. 27069
Petition by ICG Telecom Group, Inc. for Arbitration of an Interconnection Agreement with BellSouth Telecommunications, Inc. Pursuant to Section 252(b) of the Telecommunications Act of 1996
On behalf of ICG Telecom Group, Inc.

Before the State of North Carolina Utilities Commission
Docket No. P-582, Sub 6
Petition by ICG Telecom Group, Inc. for Arbitration of Interconnection Agreement with BellSouth Telecommunications, Inc. Pursuant to Section 252(b) of the Telecommunications Act of 1996
On behalf of ICG Telecom Group, Inc.

Before the Missouri Public Service Commission
Case No. TO-99-370
Petition of BroadSpan Communications, Inc. for Arbitration of Unresolved Interconnection Issues Regarding ADSL with Southwestern Bell Telephone Company

MICHAEL STARKEY
PROFESSIONAL INFORMATION

On behalf of BroadSpan Communications, Inc.

Before the Michigan Public Service Commission
Case No. U-11831
In the Matter of the Commission's own motion, to consider the total service long run incremental costs for all access, toll, and local exchange services provided by Ameritech Michigan.
On behalf of MCIWorldCom, Inc.

Before the Illinois Commerce Commission
Docket Nos. 98-0770, 98-0771 *cons.*
Proposed Modifications to Terms and Conditions Governing the Provision of Special Construction Arrangements and, *Investigation into Tariff Governing the Provision of Special Constructions Arrangements*
On behalf of AT&T Communications of Illinois, Inc.

Before the Michigan Public Service Commission
Case No. U-11735
In the matter of the complaint of BRE Communications, L.L.C., d/b/a PHONE MICHIGAN, against Michigan Bell Telephone Company, d/b/a AMERITECH MICHIGAN, for violations of the Michigan Telecommunications Act
On behalf of BRE Communications, L.L.C.

Before the Indiana Utility Regulatory Commission
Cause No. 40830
In the Matter of the request of the Indiana Payphone Association for the Commission to Conduct an Investigation of Local Exchange Company Pay Telephone tariffs for Compliance with Federal Regulations, and to Hold Such Tariffs in Abeyance Pending Completion of Such Proceeding
On behalf of the Indiana Payphone Association

Before the Michigan Public Service Commission
Complaint Pursuant to Sections 203 and 318 of the Michigan Telecommunications Act to Compel Respondents to Comply with Section 276 of the Federal Telecommunications Act
On behalf of the Michigan Pay Telephone Association

Before the Missouri Public Service Commission
Case No. TO-98-278
In the Matter of the Petition of Birch Telecom of Missouri, Inc., for Arbitration of the Rates, Terms, Conditions, and Related Arrangements for Interconnection with Southwestern Bell Telephone Company
On behalf of Birch Telecom of Missouri, Inc.

Before the Public Service Commission of the Commonwealth of Kentucky
Administrative Case No. 361
Deregulation of Local Exchange Companies' Payphone Services
On behalf of the Kentucky Payphone Association

Before the Public Utilities Commission of Ohio
Case No. 96-899-TP-ALT
The Application of Cincinnati Bell Telephone Company for Approval of a Retail Pricing Plan Which May Result in Future Rate Increases
On behalf of the MCI Telecommunications Corporation

MICHAEL STARKEY
PROFESSIONAL INFORMATION

Before the Public Utilities Commission of the State of Hawaii
Docket No. 7702
Instituting a Proceeding on Communications, Including an Investigation of the Communications Infrastructure of the State of Hawaii
On behalf of GST Telecom Hawaii, Inc.

Before the Michigan Public Service Commission
Case No. U-11410
In the Matter of the Petition of the Michigan Pay Telephone Association to initiate an investigation to determine whether Michigan Bell Telephone Company d/b/a Ameritech Michigan and GTE North Incorporated are in compliance with the Michigan Telecommunications Act and Section 276 of The Communications Act of 1934, as amended
On behalf of the Michigan Pay Telephone Association

Before the Indiana Utility Regulatory Commission
Cause No. 40849
In the matter of Petition of Indiana Bell Telephone Company, Incorporated d/b/a Ameritech Indiana for the Commission to Decline to Exercise in Whole or in Part its Jurisdiction Over, and to Utilize Alternative Regulatory Procedures For, Ameritech Indiana's Provision of Retail and Carrier Access Services Pursuant to I.C. 8-1-2.6 Et Seq.
On behalf of AT&T Communications of Indiana, Inc.

Before the Federal Communication Commission
C.C. Docket No. 97-137
In the Matter of Application by Ameritech Michigan for Authorization under Section 271 of the Communications Act to Provide In-Region, InterLATA Service in the State of Michigan.
On behalf of the AT&T Corporation

Before the Indiana Utility Regulatory Commission
Cause No. 40611
In the Matter of the Commission Investigation and Generic Proceeding on Ameritech Indiana's Rates for Interconnection, Service, Unbundled Elements and Transport and Termination under the Telecommunications Act of 1996 and Related Indiana Statutes
On behalf of the MCI Telecommunications Corporation

Before the Public Utility Commission of Ohio
Case No. 97-152-TP-ARB
In the matter of the petition of MCI Telecommunications Corporation for arbitration pursuant to section 252(b) of the Telecommunications Act of 1996 to establish an interconnection agreement with Cincinnati Bell Telephone Company
On behalf of the MCI Telecommunications Corporation

Before the Michigan Public Service Commission
Case No. U-11280
In the matter, on the Commission's own motion to consider the total service long run incremental costs and to determine the prices of unbundled network elements, interconnection services, and basic local exchange services for AMERITECH MICHIGAN
On behalf of the MCI Telecommunications Corporation

Before the Illinois Commerce Commission

MICHAEL STARKEY
PROFESSIONAL INFORMATION

Docket No. 96-0486
Investigation into forward looking cost studies and rates of Ameritech Illinois for interconnection, network elements, transport and termination of traffic
On behalf of the MCI Telecommunications Corporation

Before the Public Utility Commission of Ohio
Case No. 96-922-TP-UNC
In the Matter of the Review of Ameritech Ohio's Economic Costs for Interconnection, Unbundled Network Elements, and Reciprocal Compensation for Transport and Termination of Local Telecommunications Traffic
On behalf of the MCI Telecommunications Corporation

Before the New Jersey Board of Public Utilities
Docket No. TX95120631
In the Matter of the Investigation Regarding Local Exchange Competition for Telecommunications Services
On behalf of the MCI Telecommunications Corporation

Before the Michigan Public Service Commission
Case No. U-11104
In the matter, on the Commission's Own Motion, to Consider Ameritech Michigan's Compliance With the Competitive Checklist in Section 271 of the Telecommunications Act of 1996
On behalf of AT&T Communications of Indiana, Inc.

Before the Public Utility Commission of Ohio
Case Nos. 96-702-TP-COI, 96-922-TP-UNC, 96-973-TP-ATA, 96-974-TP-ATA, Case No. 96-1057-TP-UNC
In the Matter of the Investigation Into Ameritech Ohio's Entry Into In-Region InterLATA Services Under Section 271 of the Telecommunications Act of 1996.
On behalf of AT&T Communications of Ohio, Inc.

Before the Illinois Commerce Commission
Docket No. 96-0404
Investigation Concerning Illinois Bell Telephone Company's Compliance With Section 271(c) of the Telecommunications Act of 1996
On behalf of AT&T Communications of Illinois, Inc.

Before the Commonwealth of Massachusetts Department of Public Utilities
In the Matter of: D.P.U. 96-73/74, D.P.U. 96-75, D.P.U. 96-80/81, D.P.U. 96-83, D.P.U. 96-94, NYNEX - Arbitrations
On behalf of the MCI Telecommunications Corporation

Before the Pennsylvania Public Utility Commission
Docket No. A-31023670002
In the Matter of the Application of MCI Metro Access Transmission Services, Inc. For a Certificate of Public Convenience and Necessity to Provide and Resell Local Exchange Telecommunications Services in Pennsylvania
On behalf of MCImetro Access and Transmission Services, Inc.

Before the New Jersey Board of Public Utilities
Docket No. TO96080621

MICHAEL STARKEY
PROFESSIONAL INFORMATION

In the Matter of MCI Telecommunications Corporation for Arbitration with Bell Atlantic-New Jersey, Inc. Pursuant to Section 252 of the Telecommunications Act of 1996
On behalf of the MCI Telecommunications Corporation

Before the Wisconsin Utility Regulatory Commission
Cause No. 40571-INT-01
Petition for Arbitration of Interconnection Rates, Terms and Conditions, and Related Arrangements with Wisconsin Bell Telephone Company d/b/a Ameritech Wisconsin
On behalf of AT&T Communications of Wisconsin, Inc.

Before the Public Utility Commission of Ohio
Case No. 96-752-TP-ARB
Petition for Arbitration of Interconnection Rates, Terms and Conditions, and Related Arrangements with Ohio Bell Telephone Company d/b/a Ameritech Ohio
On behalf of AT&T Communications of Ohio, Inc.

Before the Illinois Commerce Commission
Docket No. 96-AB-003
Docket No. 96-AB-004 *Consol.*
Petition for Arbitration of Interconnection Rates, Terms and Conditions, and Related Arrangements with Illinois Bell Telephone Company d/b/a Ameritech Illinois
On behalf of AT&T Communications of Illinois, Inc.

Before the Michigan Public Service Commission
Case No. U-11151
Petition for Arbitration of Interconnection Rates, Terms and Conditions, and Related Arrangements with Michigan Bell Telephone Company d/b/a Ameritech Michigan
On behalf of AT&T Communications of Michigan, Inc.

Before the Indiana Utility Regulatory Commission
Cause No. 40571-INT-01
In the Matter of the Petition of AT&T Communications of Indiana, Inc. Requesting Arbitration of Certain Terms and Conditions and Prices for Interconnection and Related Arrangements from Indiana Bell Telephone Company, Incorporated d/b/a Ameritech Indiana Pursuant to Section 252 (b) of the Communications Act of 1934, as Amended by the Telecommunications Act of 1996.
On behalf of AT&T Communications of Indiana, Inc.

Before the Missouri Public Service Commission
Case No. TT-96-268
Application of Southwestern Bell Telephone Company, Inc. to Revise P.S.C. Mo.-No. 26, Long Distance Message Telecommunications Service Tariff to Introduce the Designated Number Optional Calling Plan
On behalf of the MCI Telecommunications Corporation

Before the Corporation Commission of the State of Oklahoma
Cause No. PUD 950000411
Application of Southwestern Bell Telephone Company for an Order Approving Proposed Revisions in Applicant's Long Distance Message Telecommunications Service Tariff Southwestern Bell Telephone Company's Introduction of 1+ Saver Direct℠
On behalf of the MCI Telecommunications Corporation

MICHAEL STARKEY
PROFESSIONAL INFORMATION

Before the Georgia Public Service Commission
Docket No. 6415-U and 6537-U *cons.*
Petition of MCImetro to Establish Nondiscriminatory Rates, Terms and Conditions for the Unbundling and Resale of Local Loops
On behalf of MCImetro Access Transmission Services

Before the Public Service Commission of the State of Mississippi
Docket No. 95-UA-358
Regarding a Docket to Consider Competition in the Provision of Local Telephone Service
On behalf of the Mississippi Cable Television Association

Before the Maryland Public Service Commission
Docket No. 8705
In the Matter of the Inquiry Into the Merits of Alternative Plans for New Telephone Area Codes in Maryland
On behalf of the Staff of the Maryland Public Service Commission

Before the Maryland Public Service Commission
Docket No. 8584, Phase II
In the Matter of the Application of MFS Intelenet of Maryland, Inc. for Authority to Provide and Resell Local Exchange and Inter-Exchange Telephone Service; and Requesting the Establishment of Policies and Requirements for the Interconnection of Competing Local Exchange Networks

In the Matter of the Investigation of the Commission on its Own Motion Into Policies Regarding Competitive Local Exchange Telephone Service
On behalf of the Staff of the Maryland Public Service Commission

Before the Illinois Commerce Commission
Docket No. 94-0400
Application of MCImetro Access and Transmission Services, Inc. For a Certificate of Exchange Service Authority Allowing it to Provide Facilities-Based Local Service in the Chicago LATA
On behalf of the Office of Policy and Planning, Illinois Commerce Commission

Before the Illinois Commerce Commission
Docket No. 94-0315
Petition of Ameritech-Illinois for 708 NPA Relief by Establishing 630 Area Code
On behalf of the Office of Policy and Planning, Illinois Commerce Commission

Before the Illinois Commerce Commission
Docket No. 94-0422
Complaints of MFS, TC Systems, and MCI against Ameritech-Illinois Regarding Failure to Interconnect
On behalf of the Office of Policy and Planning, Illinois Commerce Commission

Before the Illinois Commerce Commission
Docket Nos. 94-0096, 94-0117, and 94-301
Proposed Introduction of a Trial of Ameritech's Customers First Plan in Illinois, et al.
On behalf of the Office of Policy and Planning, Illinois Commerce Commission

Before the Illinois Commerce Commission

MICHAEL STARKEY
PROFESSIONAL INFORMATION

Docket No. 94-0049
Rulemaking on Line-Side and Reciprocal Interconnection
On behalf of the Office of Policy and Planning, Illinois Commerce Commission

Before the Illinois Commerce Commission
Docket No. 93-0409
MFS-Intelenet of Illinois, Inc. Application for an Amendment to its Certificate of Service Authority to Permit it to Operate as a Competitive Local Exchange Carrier of Business Services in Those Portions of MSA-1 Served by Illinois Bell Telephone and Central Telephone Company of Illinois
On behalf of the Office of Policy and Planning, Illinois Commerce Commission

Before the Illinois Commerce Commission
Docket No. 94-0042, 94-0043, 94-0045, and 94-0046
Illinois Commerce Commission on its own motion. Investigation Regarding the Access Transport Rate Elements for Illinois Consolidated Telephone Company (ICTC), Ameritech-Illinois, GTE North, GTE South, and Central Telephone Company (Centel)
On behalf of the Office of Policy and Planning, Illinois Commerce Commission

Before the Illinois Commerce Commission
Docket No. 93-0301 and 94-0041
GTE North Incorporated. Proposed Filing to Restructure and Consolidate the Local Exchange, Toll, and Access Tariffs with the Former Contel of Illinois, Inc.
On behalf of the Office of Policy and Planning, Illinois Commerce Commission

Before the Public Service Commission of the State of Missouri
Case No. TC-93-224 and TO-93-192
In the Matter of Proposals to Establish an Alternate Regulation Plan for Southwestern Bell Telephone Company
On behalf of the Telecommunications Department, Missouri Public Service Commission

Before the Public Service Commission of the State of Missouri
Case No. TO-93-116
In the Matter of Southwestern Bell Telephone Company's Application for Classification of Certain Services as Transitionally Competitive
On behalf of the Telecommunications Department, Missouri Public Service Commission

Selected Reports, Publications and Presentations

Telecommunications Costing and Pricing
Interconnection and Inter-Carrier Compensation
Advanced Regulatory Studies Program
Michigan State University
Cincinnati, Ohio, October 13, 2000

Telecommunications Pricing in Tomorrow's Competitive Local Market
Professional Pricing Societies 9th Annual Fall Conference
Pricing From A to Z
Chicago, Illinois, October 30, 1998

Recombining Unbundled Network Elements: An Alternative to Resale

MICHAEL STARKEY
PROFESSIONAL INFORMATION

ICM Conferences' Strategic Pricing Forum
January 27, 1998, New Orleans, Louisiana

MERGERS – Implications of Telecommunications Mergers for Local Subscribers
National Association of State Utility Consumer Advocates Mid-Year Meeting,
Chicago, Illinois, June 24 1996

Unbundling, Costing and Pricing Network Elements in a Co-Carrier World
Telecommunications Reports' Rethinking Access Charges & Intercarrier Compensation
Washington, D.C., April 17, 1996

Key Local Competition Issues Part I (novice)
Key Local Competition Issues Part II (advanced)
with Mark Long
National Cable Television Associations' 1995 State Telecommunications Conference
Washington, D.C., November 2, 1995

Competition in the Local Loop
New York State Telephone Association and Telephone Association of New England Issues Forum
Springfield, Massachusetts, October 18, 1995

Compensation in a Competitive Local Exchange
National Association of Regulatory Utility Commissioner Subcommittee on Communications' Summer Meetings
San Francisco, California, July 21, 1995

Fundamentals of Local Competition and Potential Dangers for Interexchange Carriers
COMPTEL 1995 Summer Business Conference
Seattle, Washington, June 12, 1995

EXHIBIT 2

BellSouth Telecommunications, Inc.
Tennessee Regulatory Authority
Docket No. 00-00544
Broadslate's Revised 1st Interrogatories
November 1, 2000
Item No. 26

REQUEST: Please provide the total amount of expense BellSouth booked for conditioning activities (i.e., removing load coils, removing bridged tap or removing repeaters and/or other devices disruptive to digital services) in 1998, 1999, and year to date 2000.

RESPONSE: BellSouth does not maintain its accounting records in a manner which would permit it to provide the detailed information sought by this request. While BellSouth records the dollars (whether capital or expense) associated with an outside plant construction job, a job often includes many tasks and determining the cost incurred by the actual "conditioning" may not be separable from other tasks. Also, even the identification of those jobs that included the removal of some portion of the plant, is dependent on the verbiage the engineer stated in the title of the job and therefore capturing all the relevant jobs would be unlikely.

EXHIBIT 3

BELLSOUTH--SOUTH CAROLINA
ANALOG VS DIGITAL LINES

	1992	1993	1994	1995	1996	1997	1998	1999	2000	Percentage Change 1992-2000
SWITCHED ACCESS LINES										
Analog (4khz or Equivalent)										
Main Access Lines	1,018,953	1,044,859	1,080,554	1,122,531	1,177,847	1,241,894	1,287,280	1,316,355	1,336,946	31.2%
PBX & Centrex Trunks (Excluded From Comparison)*	29,859	31,316	33,586	35,631	39,936	43,765	50,868	52,812	54,268	81.7%
Centrex Extensions	21,513	17,003	15,239	15,159	14,838	16,894	21,321	23,597	42,606	98.0%
TOTAL ANALOG - SWITCHED	1,070,325	1,093,178	1,129,379	1,173,321	1,232,621	1,302,553	1,359,469	1,392,764	1,433,820	34.0%
Digital (64kbps or Equivalent)										
Main Access Lines	-	-	282	986	1,515	2,843	4,189	5,281	5,610	
PBX & Centrex Trunks	-	-	-	-	-	-	-	-	-	
Centrex Extensions	59,839	72,687	82,308	84,657	85,207	79,690	77,300	68,674	42,568	-28.9%
TOTAL DIGITAL - SWITCHED	59,839	72,687	82,590	85,643	86,722	82,533	81,489	73,955	48,178	
TOTAL SWITCHED ACCESS LINES	1,130,164	1,165,865	1,211,969	1,258,964	1,319,343	1,385,086	1,440,958	1,466,719	1,481,998	31.1%
SPECIAL ACCESS LINES										
Analog (4khz or Equivalent)	10,397	7,692	6,772	5,831	5,362	4,619	4,216	6,719	13,288	27.8%
Digital (64kbps or Equivalent)	52,144	67,319	83,858	114,379	130,880	148,497	198,692	318,057	615,339	1080.1%
TOTAL SPECIAL ACCESS LINES	62,541	75,011	90,630	120,210	136,242	153,116	202,908	324,776	628,627	905.1%
TOTAL ACCESS LINES (SWITCHED & SPECIAL)	1,192,705	1,240,876	1,302,599	1,379,174	1,455,585	1,538,202	1,643,866	1,791,495	2,110,625	77.0%
TOTAL ANALOG *	1,050,863	1,069,554	1,102,565	1,143,521	1,198,047	1,263,407	1,312,817	1,346,671	1,392,840	32.5%
TOTAL DIGITAL	111,983	140,006	166,448	200,022	217,602	231,030	280,181	392,012	663,517	492.5%
Year-to-Year growth percentage Analog		1.78%	3.09%	3.71%	4.77%	5.46%	3.91%	2.58%	3.43%	
Year-to-Year growth percentage Digital		25.02%	18.89%	20.17%	8.79%	6.17%	21.27%	39.91%	69.26%	
Access Growth in Lines - Analog		18,691	33,011	40,956	54,526	65,360	49,410	33,854	46,169	129,433
Access Growth in Lines - Digital		28,023	26,442	33,574	17,580	13,428	49,151	111,831	271,505	432,487
										3.34

46,169 (1999 - 2000 analog line growth)
271,505 (1999 - 2000 digital line growth)

New analog lines deployed last three years (1998 - 2000)
New digital lines deployed last three years (1998 - 2000)
Number of times digital lines deployed exceeds analog lines (1998 - 2000)

Source: All data taken from FCC's ARMIS Data Retrieval System. See http://gullfoss2.fcc.gov/cgi-bin/websql/prod/ccb/armis1/forms/armis.hts

* AT LEAST 1995 THROUGH 2000--BELLSOUTH TELECOMMUNICATIONS, INC. REPORTS THAT THE COMPANY WAS UNABLE TO PROVIDE PBX & CENTREX TRUNKS BY TECHNOLOGY, REPORTING ANALOG AND DIGITAL PBX & CENTREX TRUNKS IN THE ANALOG CATEGORY. THEREFORE, THIS CATEGORY WAS EXCLUDED FROM THE ANALOG VS. DIGITAL COMPARISON BUT INCLUDED IN TOTAL ACCESS LINES.

EXHIBIT 4

A.17.2 LOAD COIL REMOVAL - LONG

CALCULATOR INPUT FORM - NONRECURRING LABOR TIMES

Instructions:
1. Use this worksheet to record nonrecurring labor times to be input into the Calculator calculations.
2. All amounts shown are per unit (e.g. per call, per loop, per MOU).
3. Inut data, by Cost Element, leaving no blank lines. On next row after last line of data, type END in Cost Element Column.
4. All data on this form should be cell-referenced to study workpapers.
5. Do NOT change columns, headings, sheet name.
6. Use columns F&G when cost element has a single nonrecurring cost; use columns H, I, J & K for elements with a first and additional nonrecurring cost; use columns L, M, N & O for elements with and Initial and subsequent nonrecurring cost.
7. Input Cost Element Life (in months) on first row of data for each cost element. It is not necessary to repeat on each line.

Study Min-Point Date (Mos.) 6/1/01

State	Cost Element #	Cost Element Life (Mo)	Labor Expense Description Limited to 25 Characters	JFC/ Payband	Time (Hours)	Time Hours	Labor Rates	Extended Costs
TN	A.17.2		SERVICE INQUIRY	SDWC	0.0018	-	$51.17	$0.092
TN	A.17.2		SERVICE INQUIRY	230X	0.0025	-	$31.17	$0.078
TN	A.17.2		ENGINEERING	JG57	0.0300	-	$40.54	$1.216
TN	A.17.2		ENGINEERING	4FXX	-	-	$34.31	$0.000
TN	A.17.2		ENGINEERING	4M1X	-	-	$34.31	$0.000
TN	A.17.2		CONNECT & TEST	420X	0.0973	-	$42.55	$4.140
TN	A.17.2		TRAVEL	420X	0.0100	-	$42.55	$0.426

Non-Recurring Cost: $5.95

Modifications:

(1) Replace 10 loops conditioned per dispatch to 50 loops.
(2) Remove assumption that 90% of loads will be removed in manhole environment. Replace with 50% in manholes, 50%in aerial / burried
(3) Revise worktimes consistent with Mr. Fassett's Recommendation

A.17.2 BRIDGED TAP REMOVAL

CALCULATOR INPUT FORM - NONRECURRING LABOR TIMES

Instructions:
1. Use this worksheet to record nonrecurring labor times to be input into the Calculator calculations.
2. All amounts shown are per unit (e.g. per call, per loop, per MOU).
3. Inut data, by Cost Element, leaving no blank lines. On next row after last line of data, type END in Cost Element Column.
4. All data on this form should be cell-referenced to study workpapers.
5. Do NOT change columns, headings, sheet name.
6. Use columns F&G when cost element has a single nonrecurring cost; use columns H, I, J & K for elements with a first and additional nonrecurring cost; use columns L, M, N & O for elements with and Initial and subsequent nonrecurring cost.
7. Input Cost Element Life (in months) on first row of data for each cost element. It is not necessary to repeat on each line.

Study Min-Point Date (Mos.) 6/1/01

State	Cost Element #	Cost Element Life (Mo)	Labor Expense Description Limited to 25 Characters	JFC/ Payband	Time (Hours)	Time Hours	Labor Rates	Extended Costs
TN	A.17.2		SERVICE INQUIRY	SDWC	0.0018	-	$51.17	$0.092
TN	A.17.2		SERVICE INQUIRY	230X	0.0025	-	$31.17	$0.078
TN	A.17.2		ENGINEERING	JG57	0.0300	-	$40.54	$1.216
TN	A.17.2		ENGINEERING	4FXX	-	-	$34.31	$0.000
TN	A.17.2		ENGINEERING	4M1X	-	-	$34.31	$0.000
TN	A.17.2		CONNECT & TEST	420X	0.0495	-	$42.55	$2.106
TN	A.17.2		TRAVEL	420X	0.0100	-	$42.55	$0.426

Non-Recurring Cost: $3.92

Modifications:

(1) Replace 10 loops conditioned per dispatch to 50 loops.
(2) Revise worktimes consistent with Mr. Fassett's Recommendation